




JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

TO: Members of the Senate Appropriations Committee
Members of the Senate Appropriations Subcommittee on Environmental Quality
Members of the Senate Natural Resources and Environmental Affairs Committee
Members of the House Appropriations Committee
Members of the House Appropriations Subcommittee on Environmental Quality
Members of the House Great Lakes and Environment Committee
Members of the House Tourism, Outdoor Recreation and Natural Resources Committee

FROM: Steven E. Chester, Director 

DATE: April 1, 2008

SUBJECT: Report on the Aquifer Protection and Dispute Resolution Act

In accordance with Section 31711 of Public Act 177 of 2003, Aquifer Protection and Dispute Resolution Act, the Michigan Department of Environmental Quality is submitting the attached report to the standing committees with jurisdiction on environmental matters.

The report contains an analysis of costs of program implementation to date and recommendations for modifications to the statute that would improve overall effectiveness. If you have any questions, you may contact James K. Cleland, Chief, Lansing Operations Division, Water Bureau, at 517-241-1287, or you may contact me.

Attachment

**DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU**

**Report to the Michigan Legislature
In Response to Public Act 177 of 2003
Aquifer Protection and Dispute Resolution
March 2008**

Purpose and Scope

This report is submitted to meet the requirements set forth by the Michigan Legislature in 2003 PA 177 (Act 177), which established an aquifer protection and groundwater dispute resolution program. Act 177 amended the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), by adding Part 317, Aquifer Protection and Dispute Resolution, MCL 324.31701, *et seq.* (Part 317). Act 177 created a process whereby a person whose small quantity water well failed to supply its normal supply of water or failed to furnish potable water and the person has credible reason to believe the well's problems were caused by a high capacity well, can file a complaint with the Michigan Department of Environmental Quality (MDEQ) or the Michigan Department of Agriculture (MDA) (if the complaint involves an agricultural well), alleging a potential groundwater dispute.

Section 31711 of Act 177 mandates the MDEQ to submit a report not later than April 1, 2004, and every two years thereafter, which includes both of the following:

- (a) An analysis of the department's costs of implementing Part 317 and whether the limitation on reimbursable costs under Section 31706(2) should be modified.
- (b) Recommendations on modifications to Part 317 that would improve its overall effectiveness.

This report is to be submitted to the standing committees of the Michigan Senate and House of Representatives.

Cost Analysis

The MDEQ received \$200,000 in general fund support for Fiscal Year 2004 and Fiscal Year 2005 and was authorized to hire two full-time equivalent (FTE) staff. In addition, the Aquifer Protection Revolving Fund (APRF) was appropriated at \$500,000. The MDA had no initial appropriation to implement their part of the dispute resolution program. For Fiscal Year 2006, the general fund support was eliminated and \$50,000 of the \$400,000 APRF appropriation was directed to fund the MDA's groundwater dispute resolution activities.

For Fiscal Year 2007 and the current Fiscal Year 2008, MDA (\$50,000 per year appropriation) and MDEQ staff continue to utilize the \$400,000 APRF for funding program activities. The APRF received no new revenue with the exception of interest earnings, which was \$6,110.47 for Fiscal Year 2007. The MDEQ has 1 FTE assigned

to the aquifer protection and dispute resolution program. Additional details related to program expenditures are listed below:

<u>Fiscal Year</u>	<u>General Fund</u>	<u>Aquifer Protection Revolving Fund Expenditures</u>
2005	\$200,000	\$776.65
2006	N/A	\$178,562 (includes \$50,000 MDA expenditure)
2007	N/A	\$140,838 (includes \$45,802 MDA expenditure)
2008	N/A	\$18,300 (through December 31, 2007)

If the number of complaints filed for the remainder of Fiscal Year 2008 is similar to the number of complaints filed in previous years and program staff are successful at resolving complaints without using the MDEQ order provisions in Section 31703 of Act 177, then the current APRF appropriation will have a zero balance (or near zero balance) when Fiscal Year 2009 begins.

Without additional revenue for Fiscal Year 2009 and beyond, the program will become an unfunded mandate for the MDA and the MDEQ. In order to maintain the current level of staffing, funding appropriations into the APRF should equal \$180,000 per year (\$130,000 – MDEQ, \$50,000 – MDA) at a minimum. Although the program has shown success in resolving groundwater disputes since inception (see tables below), the MDEQ recommends the repeal of Act 177 if funding is not provided to implement the law.

Groundwater Dispute Complaints Filed

<i>Since Last Report</i> 2/14/2006 – 2/29/2008		<i>Since Inception</i> 10/1/2003 – 2/29/2008	
Resolved Complaints:	20	Resolved Complaints:	52
Closed or Invalid Complaints:	13	Closed or Invalid Complaints:	43
Unresolved Complaints:	<u>1</u>	Unresolved Complaints:	<u>3</u>
Total Complaints Received:	34	Total Complaints Received:	98

Resolved Complaint Details Since Inception

<u>County</u>	<u>High Capacity Well Type</u>	<u>Number of Complaints</u>
Antrim	Golf Course Irrigation	1
Charlevoix	Quarry Dewatering	5
Clinton	Aggregate Pit Dewatering	6
Hillsdale	Agricultural Irrigation	2
Ionia	Public Water Supply	1
Monroe	Quarry Dewatering	15
Ottawa	Agricultural Irrigation	8
Saginaw	Agricultural Irrigation	14

A total of 41 complaints involving agricultural high capacity wells were forwarded to the MDA by the MDEQ for investigation.

It must be recognized that many provisions of the statute have not yet been used. If the MDEQ finds it necessary to expend funds to conduct hydrogeologic investigations (install water level monitoring wells, institute localized or regional groundwater level monitoring, analyze data using computerized groundwater models, etc.), issue orders declaring a groundwater dispute, and seek cost recovery, then program implementation costs will escalate.

Suggested Modifications to Part 317

The following modifications to Part 317 are recommended to improve the overall effectiveness of the aquifer protection and groundwater dispute resolution program.

Lake Augmentation Wells:

The definition of a high capacity well in Section 31701(j) should be amended to include lake augmentation wells. A lake augmentation well should be defined as a well constructed to extract groundwater and discharge it into a lake or impoundment to supplement natural flow to the water body and raise the water level. Due to their high capacity, lake augmentation wells have the potential to cause groundwater disputes.

Industrial or Processing Facility and Irrigation Facility:

The definition of the facilities states the terms are listed in Section 32701 as passed under Act 148 of 2003. The definitions were removed from Section 32701 under Act 33 of 2006. Part 317 should define these facilities instead of referencing the removed descriptions in Section 32701.

Potable Water Determination:

The definition of potable water in Section 31701(o) should reference a standard to determine water quality parameters that are acceptable for human consumption. The national primary drinking water standards listed in the U.S. Environmental Protection Agency, Office of Water's Drinking Water Standards and Health Advisories are used in state drinking water programs.

Terminology Change:

The definition of "small quantity well" in Section 31701(q) should be changed to "low capacity well." The change in terminology would provide consistency with "high capacity well" and benefit the public in understanding the law.

Notification of Complaint:

Part 317 does not require notification of the high capacity well owner after the filing of a complaint. While the current MDEQ program staff routinely notifies high capacity well owners of complaints filed against them, an amendment to Section 31702 is appropriate.

On-Site Evaluation Time Frame Modification:

Section 31702(3) states an on-site evaluation shall be completed within five working days of filing a complaint with the MDEQ. The language should be modified to state that the on-site evaluation shall be performed within five working days after the written assessment (if requested) is received by the department. This change would increase the usefulness of the on-site evaluation and decrease staff time when the information obtained from the written assessment determines the complaint is invalid.

Time Period for Complaint Resolution:

In most cases, the time frame of 14 days in Section 31702(4) is inadequate for the MDA to obtain the information necessary to resolve complaints. The MDA should be able to extend the time frame when resolution is likely to occur. The ability to revoke the extension should be available to the high capacity and small quantity well owners.

Investigation Cost Reimbursement:

The MDEQ is unable to recover investigation costs, including hydrogeologic studies performed by third party contractors, until a groundwater dispute is declared under Section 31703. Part 317 should be amended so the MDEQ can require the reimbursement of monies spent out of the APRF as part of the complaint resolution.

Water Level Data Collection:

Section 31703(1)(d) states an investigation must disclose "That the lowering of the groundwater level exceeds normal seasonal water level fluctuations . . ." in order to declare a groundwater dispute. Without the monitoring of water levels in areas unaffected by pumping, normal seasonal fluctuations cannot be accurately determined. The aquifer protection and dispute resolution program would benefit from the development and implementation of a statewide groundwater level monitoring network that would track changes to ascertain fluctuations caused by natural factors or human activities. A funding source is currently not in place to implement this activity. The MDEQ can offer recommendations on areas with the greatest need for monitoring.

Recharge Capability Language Modification:

The term "recharge capability" used in Section 31703(2) and Section 31705(2)(b) is not an appropriate measure to determine if a groundwater dispute is occurring. The effects of pumping from a high capacity well on a small quantity well are primarily related to the hydraulic properties of the aquifer and physical characteristics of each well. Also, regional groundwater withdrawals are typically much less than the estimated regional recharge. Part 317 should be modified to replace the phrase "will exceed the recharge capability of the groundwater resource of the area" with "will adversely impact low capacity wells in the area" (or a statement with similar meaning).

Complaints Filed Against Multiple High Capacity Well Owners:

A drop in water level within a complainant's well may be attributed to the pumping of multiple high capacity wells. The law does not establish criteria for determining how much of the timely and reasonable compensation each high capacity well owner would be responsible for paying to the small quantity well owner. Under Section 31707, the obligation of each high capacity well owner could be based on a percentage of the drawdown related to high capacity well pumping caused by individual users.

Reimbursement of Expenses:

The 30-day time period listed in Section 31707(1)(a) for reimbursement of expenses reasonably incurred by the complainant is too short. A number of potentially valid complaints were closed because the small quantity well owner did not submit the necessary paperwork within the required time period. A 60-day requirement is recommended to provide additional time to the small quantity owner and still allow the MDEQ or MDA to obtain information necessary to determine the validity of the complaint.

Reimbursable Expenses:

Two additional expenditures incurred by small quantity well owners should be eligible for timely and reasonable compensation by the high capacity well owner under Section 31707(1):

- ☐ The cost for analyzing drinking water quality samples related to complaints where the well has failed to furnish potable water.
- ☐ Expenses to plug the abandoned small quantity well when a new well must be drilled or when a resident is connected to municipal water to replace the well that failed.

High Capacity Well Exemptions:

Section 31709(b) should be removed from Act 177. Part 317 should apply to a public water supply system that is owned or operated by a local unit of government. The state's wellhead protection program evaluates the ability of the aquifer to sustain pumping to meet the demands of the public water supply and comply with Michigan's Safe Drinking Water Act, 1976 PA 399, as amended, and does not evaluate the effects of high capacity well pumping on nearby small quantity wells. Having an approved wellhead protection plan does not prevent adverse impacts on neighboring small quantity wells.